

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch

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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 99.28**WELDING INSPECTION REPORT****Resident Engineer:** Casey, William**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-027101**Date Inspected:** 26-Jan-2012**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1530**Contractor:** L & M Industrial Fabrications**Location:** Tangent, Oregon**CWI Name:** Tom Dreyer**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower Head Parapet**Summary of Items Observed:**

This Quality Assurance (QA) Inspector, Art Peterson arrived at L & M Industrial Fabricators between the times noted above to randomly observe Quality Control (QC) personnel monitor the welding operations performed by L & M personnel and the NDT inspection on the fabrication of chimney parapet walls to the Tower Head Top Plate. The following observations for the extra work being performed to the following contract change order were:

CCO: 196 - Description: Construct parapet walls at the Tower Heads

**North Tower Chimney Parapet:**

This QA Inspector randomly observed L & M welder Jake Schuld (Welder ID #19) performing the root, fill and cover pass weld operation on a partial-joint-penetration (PJP) corner-joint groove weld per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (2G) horizontal position connecting the parapet wall plate-(A5b) to parapet wall plate-(A6b) of the North Chimney Tower Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the root, fill and cover pass weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-TC-P4-GF using Hobart Excel Arc E71T-1 (.052") diameter electrode.

**North Tower Chimney Parapet:**

This QA Inspector randomly observed L & M welder David Harrington (Welder ID #34) performing the fillet

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## WELDING INSPECTION REPORT

( Continued Page 2 of 2 )

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weld pass operation per the Flux Cored Arc Welding (FCAW-G) gas shielding process in the (2F) horizontal position connecting the stiffener plates (A8e, A8f, A8g, A8h, and A8i) to the internal side of parapet wall plate-(A8b) of the North Tower Chimney Head. This QA Inspector observed QC Inspector Tom Dreyer verify prior to the start of the fillet weld operation that the minimum preheat temperature as per the approved WPS was established and afterwards verified that the welding parameters (Amps, Volts and Travel Speed) were in accordance with WPS-D1.5-FC-006-2F using Hobart Excel Arc E71T-1 (.052") diameter electrode.

### North Tower Chimney Parapet:

This QA Inspector observed L & M Industrial Fabricators Quality Control (QC) NDT Inspector Leo Jim performing NDT Ultrasonic Test (UT) inspection on the complete-joint penetration (CJP) corner-joint groove weld. The NDT was performed in accordance with L & M Industrial Fabricator's Weld Quality Control Plan (WQCP) - ABF Submittal 2510 Rev. 1. The weld joint numbers inspected and the QC NDT Inspector's test results were:

A4a base plate CJP corner joint welded to A4b wall plate- No UT Longitudinal or Transverse Indications detected.  
A5a base plate CJP corner joint welded to A5b wall plate- (1) UT Transverse Linear Indication detected.  
A6a base plate CJP corner joint welded to A6b wall plate- (1) UT Transverse Linear Indication detected.  
A7a base plate CJP corner joint welded to A7b wall plate- No UT Longitudinal or Transverse Indications detected.  
A8a base plate CJP corner joint welded to A8b wall plate- No UT Longitudinal or Transverse Indications detected.



### Summary of Conversations:

No significant conversations were reportable on this date.

### Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, 510-385-5910, who represents the Office of Structural Materials for your project.

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**Inspected By:** Peterson, Art

Quality Assurance Inspector

**Reviewed By:** Mertz, Robert

QA Reviewer

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